

Message

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**From:** Tonnesen, Gail [Tonnesen.Gail@epa.gov]  
**Sent:** 2/11/2021 4:01:37 PM  
**To:** Daly, Carl [Daly.Carl@epa.gov]; Morales, Monica [Morales.Monica@epa.gov]; Fiedler, Kerri [Fiedler.Kerri@epa.gov]; Jackson, Scott [Jackson.Scott@epa.gov]; Bean, Clayton [bean.clayton@epa.gov]; Matichuk, Rebecca [Matichuk.Rebecca@epa.gov]  
**Subject:** FW: Final Ramboll Modeling Report Evaluating CAA §179B for Northern Wasatch Front  
**Attachments:** IntlO3Modeling\_FinalReport\_3Feb21.pdf

Hi All,

## Ex. 5 Deliberative Process (DP)

Thanks,  
Gail

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**From:** Henderson, Barron <henderson.barron@epa.gov>  
**Sent:** Thursday, February 11, 2021 8:41 AM  
**To:** Possiel, Norm <Possiel.Norm@epa.gov>; Fox, Tyler <Fox.Tyler@epa.gov>; Simon, Heather <Simon.Heather@epa.gov>  
**Cc:** Tonnesen, Gail <Tonnesen.Gail@epa.gov>; McKinley, Gobeail <McKinley.Gobeail@epa.gov>  
**Subject:** FW: Final Ramboll Modeling Report Evaluating CAA §179B for Northern Wasatch Front

FYI –

## Ex. 5 AC/DP

-Barron

Barron Henderson, Ph.D.  
US EPA; 919-541-2760

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**From:** Rikki Hrenko-Browning <[rhrenko-browning@utahpetroleum.org](mailto:rhrenko-browning@utahpetroleum.org)>

**Sent:** Wednesday, February 10, 2021 9:46 PM

**To:** Bryce Bird <[bbird@utah.gov](mailto:bbird@utah.gov)>; David McNeill <[dmcneill@utah.gov](mailto:dmcneill@utah.gov)>; j baker@utah.gov; Tonnesen, Gail <[Tonnesen.Gail@epa.gov](mailto:Tonnesen.Gail@epa.gov)>; Henderson, Barron <[henderson.barron@epa.gov](mailto:henderson.barron@epa.gov)>; Nancy Daher <[ndaher@utah.gov](mailto:ndaher@utah.gov)>; Christopher Pennell <[cpennell@utah.gov](mailto:cpennell@utah.gov)>; Becky Close <[bclose@utah.gov](mailto:bclose@utah.gov)>; Kim Shelley <[kshelley@utah.gov](mailto:kshelley@utah.gov)>; Thomas, Deb <[thomas.debrah@epa.gov](mailto:thomas.debrah@epa.gov)>

**Cc:** Brian Somers <[bsomers@utahmining.org](mailto:bsomers@utahmining.org)>; Jenny Esker <[jenny.esker@riotinto.com](mailto:jenny.esker@riotinto.com)>; Rachel Agnew <[RachelAgnew@chevron.com](mailto:RachelAgnew@chevron.com)>; mltextor@globalessinc.com

**Subject:** Final Ramboll Modeling Report Evaluating CAA §179B for Northern Wasatch Front

Dear DAQ, EPA,

UPA and UMA appreciate the time that DAQ and EPA spent with us to review Ramboll's modeling results evaluating the possibility of a 179B demonstration for the Northern Wasatch Front (NWF) ozone nonattainment area (NWF). Please find attached Ramboll's final modeling report describing results of both CAMx source apportionment and CMAQ zero-out modeling, using EPA's 2016 modeling platform. Ramboll conducted the modeling in accordance with EPA guidance.

The modeling shows a near constant influence of 9.9 ppb ozone from international anthropogenic emissions at the (controlling) Bountiful Viewmont monitor. The NWF meets the "but for" test of CAA §179B, i.e., that the area would meet the 70 ppb ozone standard but for the influence of international emissions. Although the modeling may underpredict local ozone formation, Ramboll estimated that the effect of that likely leads to an overestimate of international contribution of less than 2 ppb and this does not change the conclusion that the NWF meets the "but for" test. The contribution of international emissions is significant and cannot be discounted or disregarded.

The report includes a short discussion of the conceptual model of ozone transport from Asia to the intermountain west. As described in the EPA 179B guidance and consistent with scientific literature, this transport takes days to weeks and occurs nearly continuously throughout the ozone season. Persistent high pressure in the intermountain west brings ozone back down to ground level. Turbulence induced by heating and the mountains enhances this vertical downward mixing. Ramboll cautions against using relatively short-duration trajectories (e.g., HYSPLIT) to identify transport that may take weeks. **Photochemical modeling remains the most appropriate tool to evaluate long-range transport** because it integrates all of the various factors contributing to a highly complex physical and chemical process.

UPA and UMA believe that a successful 179B would allow the NWF to realize the full benefits of Tier 3 engines and Tier 3 gasoline and an opportunity to seek other air quality improvements that might not get credit in the State Implementation Plan (SIP) but may lead to attainment with the 70 ppb ozone standard. If EPA lowers the standard, these real air quality improvements will be critical to a successful future for the NWF and its residents.

Again, we thank DAQ and EPA for your consideration of this important issue. We look forward to continuing our discussions about international transport to the NWF. In the meantime, please don't hesitate to contact me with feedback or questions.

Best regards,  
Rikki Hrenko-Browning

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